

REMARKS

Claims 1-34, as amended, remain herein. Claims 8-11, 15, 21, 24-26, and 30-32 are currently withdrawn from consideration.

1. Claims 1, 3, 4, 6 and 34 were rejected under 35 U.S.C. § 103(a) over Yoshida et al. U.S. Patent 5,973,878 and Miura et al. U.S. Patent 6,341,896. Yoshida discloses a hydrodynamic bearing motor. The Office Action admits that Yoshida fails to disclose that elements of the hydrodynamic radial bearing and the hydrodynamic thrust bearing comprise austenitic stainless steel. Yoshida further fails to disclose that the sleeve is for rotatably supporting the shaft via air. Rather, Yoshida discloses a bearing with lubricant-filled gaps between a bush 107 and a shaft 105.

Miura discloses that the shaft 21 comprises austenitic stainless steel. Miura fails to disclose that the sleeve is for rotatably supporting the shaft via air. Rather, Miura discloses that a bearing space is filled with a lubricant. See Miura, col. 3, lines 51-55. Miura further teaches away from supporting the shaft via air, by removing air completely from the device. See Miura, col. 8, lines 39-46.

And it would not have been obvious to one of ordinary skill in the art to combine Yoshida and Miura. The purpose of the austenitic stainless steel in Miura is to match the thermal expansion coefficient to that of the copper bearing sleeve 13. See Miura, col. 4, line 67-col. 5, line 5. Since Yoshida fails to disclose a copper bush or sleeve, one of ordinary skill in the art would not combine Miura with Yoshida to render obvious applicants' claims 1 and 3.

Further, the purpose of the annular magnet 313 of Yoshida is to seal a magnetic lubricant fluid within the device. Applicants' claimed air is not magnetic. Nor would of ordinary skill in the art would not combine a magnetic fluid lubricant and magnet of Yoshida with a copper bush

or sleeve of Miura, because the copper bush or sleeve could interfere with the magnetic lubricant.

An advantage of the hydrodynamic bearing motor according to claims 1 and 3 is that when subjected to stress, the non-magnetic austenitic abraded materials are transformed into martensite, which is magnetic. This material can be stuck to the magnet 13. Neither Yoshida nor Miura discloses any such function or capability.

Since Miura and Yoshida combined fail to disclose every element of applicants' claims 1 and 3, and since one of ordinary skill in the art would not have combined Yoshida and Miura to render obvious applicants' claims 1 and 3, Yoshida and Miura are inadequate grounds for rejecting claims 1, 3, 4, 6 and 34 under 35 U.S.C. § 103(a). Reconsideration and withdrawal of the rejection are respectfully requested.

2. Claims 12 and 14, 18, 20, 23 and 29 were rejected under 35 U.S.C. § 103(a) over Yoshida, Miura, and Toshimitsu et al. U.S. Patent 5,366,298. For the reasons stated above, claims 1 and 3 are not obvious over Yoshida and Miura. One of ordinary skill in the art would not combine Toshimitsu with Yoshida and Miura to render obvious applicants' claims 12, 14, 18, 20, 23, and 29. Yoshida and Miura disclose a lubricating fluid between a shaft and a sleeve. Yoshida requires that the fluid be magnetic and magnets seal the fluid within the device. Toshimitsu discloses no such fluid, rather a hydrogenated amorphous carbon film deposited on the sliding surfaces of the bearing. Such a film makes the fluid and magnets of Yoshida and Miura unnecessary.

Further, such a coating teaches away from applicants' claims, because it prevents any metallic surfaces from sliding against each other, thus, a magnet for collecting such particles would be useless. See Toshimitsu, col. 12, lines 63-65. Since one of ordinary skill in the art would not

combine Toshimitsu with Yoshida and Miura, they are inadequate grounds for rejection of claims 12, 14, 18, 20, 23 and 29 under 35 U.S.C. § 103(a). Reconsideration and withdrawal of the rejections are respectfully requested.

3. Claims 2, 5, 7, 13, 16, 17, 19, 22, 27, 28 and 33 were rejected under 35 U.S.C. § 103(a) over Yoshida, Miura, and Toshimitsu. For the reasons stated above in section 2, above, one of ordinary skill in the art would not combine Toshimitsu with Yoshida and Miura. Reconsideration and withdrawal of the rejection are respectfully requested.

For the foregoing reasons, all claims 1-7, 12-14, 16-20, 22, 23, 27-29, 33 and 34 are now fully in condition for allowance, which is respectfully requested. The PTO is hereby authorized to charge or credit any necessary fees to Deposit Account No. 19-4293. Should the Examiner deem that any further amendments would be desirable in placing this application in even better condition for issue, he is invited to telephone Applicant's undersigned representative.

Respectfully submitted,

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Date: April 30, 2008

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Attorney Docket No.: 28951.5408